

What is claimed is:

1. A method for fabricating a III-V nitride film, comprising the steps of:  
preparing a substrate onto a susceptor in a reactor,  
heating the substrate to a predetermined temperature,  
coating an  $\text{AlaGa}^b\text{In}^c\text{N}$  ( $a+b+c=1$ ,  $a>0$ ) film on an interior portion of a reactor  
which is heated to about  $1000^\circ\text{C}$  or over through the heating for the substrate, and  
introducing a III raw material gas and a V raw material gas with a carrier gas  
onto the substrate prepared in the reactor, and thus, fabricating an  $\text{Al}_x\text{Ga}_y\text{In}_z\text{N}$   
( $x+y+z=1$ ) film by a MOCVD method.

2. A fabricating method as defined in claim 1, wherein the  $\text{AlaGa}^b\text{In}^c\text{N}$  film  
is coated on the susceptor which is heated to about  $1000^\circ\text{C}$  or over.

3. A fabricating method as defined in claim 1, wherein the  $\text{AlaGa}^b\text{In}^c\text{N}$   
( $a+b+c=1$ ,  $a>0$ ) film includes 50 atomic percentages or over of Al element ( $a>0.5$ )  
for all of the III elements. A

4. A fabricating method as defined in claim 3, wherein the  $\text{AlaGa}^b\text{In}^c\text{N}$   
( $a+b+c=1$ ,  $a>0$ ) film is composed of an AlN film.

5. A fabricating method as defined in claim 3, wherein the  $\text{Al}_x\text{Ga}_y\text{In}_z\text{N}$   
( $x+y+z=1$ ) film includes 50 atomic percentages or over of Al element ( $a>0.5$ ) for all  
of the III elements.

6. A fabricating method as defined in claim 3, wherein the  $\text{Al}_x\text{Ga}_y\text{In}_z\text{N}$   
( $x+y+z=1$ ) film is composed of an AlN film.

7. An apparatus for fabricating a III-V nitride film by a MOCVD method,  
comprising:

a reactor in which the MOCVD reaction between a III raw material gas and a V  
material gas is generated,

a susceptor to hold a substrate thereon installed in the reactor,

a heater to heat the substrate to a predetermined temperature via the susceptor,

at least one of the interior wall of the reactor and the susceptor is coated with  
an  $\text{AlaGa}^b\text{In}^c\text{N}$  ( $a+b+c=1$ ,  $a>0$ ) film, which is heated to  $1000^\circ\text{C}$  or over.

8. A fabricating apparatus as defined in claim 7, wherein the  $\text{AlaGa}^b\text{In}^c\text{N}$   
( $a+b+c=1$ ,  $a>0$ ) film includes 50 atomic percentages or over of Al element ( $a>0.5$ )  
for all of the III elements.

9. A fabricating apparatus as defined in claim 8, wherein the  $\text{AlaGa}^b\text{In}^c\text{N}$

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(a+b+c=1, a>0) film is composed of an AlN film.

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